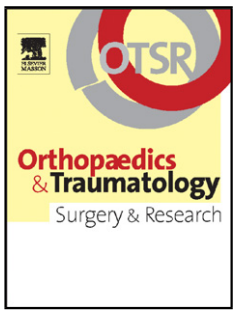

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Author: David Montoya-Faivre Germain Pomares Valentin Calafat François Dap Gilles Dautel

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CLINICAL AND RADIOLOGICAL OUTCOMES FOLLOWING RADIOSCAPHOLUNATE FUSION

David Montoya-Faivre, Centre Chirurgical Emile Gallé, CHRU Nancy, France
david.montoyafaivre@gmail.com

GermainPomares, Centre Chirurgical Emile Gallé, CHRU Nancy, France
Valentin Calafat, Centre Chirurgical Emile Gallé, CHRU Nancy, France
François Dap, Centre Chirurgical Emile Gallé, CHRU Nancy, France
Gilles Dautel, Centre Chirurgical Emile Gallé, CHRU Nancy, France

Abstract

INTRODUCTION – Radioscapholunate (RSL) fusion is typically performed following wrist trauma. It addresses the pain caused by radiocarpal osteoarthritis but reduces the wrist's mobility. The objective of this study was to determine the long-term clinical and radiological outcomes of this procedure.

MATERIALS AND METHODS – This was a retrospective study of all wrists operated for RSL fusion in our surgery unit over a 12-year period. The clinical analysis consisted of joint amplitudes, grip strength, pain (VAS) and functional scores (PRWE, QuickDash, Mayo Wrist Score). The radiological analysis focused on bone fusion and the presence of midcarpal osteoarthritis.

RESULTS – This surgery procedure was performed on 48 wrists. Of these, 34 patients were available for review, including 6 who had subsequently undergone total wrist fusion after the RSL procedure. The average follow-up was 53 months.Flexion/extension and radioulnar deviation were 56° and 30°, respectively. Grip strength in the operated wrist was 71% of the contralateral wrist. The mean pain level was 3 out of 10. The PRWE, QuickDash and Mayo Wrist Score were 35.7, 44.5, and 57.2, respectively. Seventy nine percent of patients were satisfied with the outcome. The fusion rate was 71%, the midcarpal osteoarthritis rate was 64% and the STT osteoarthritis rate was 46%.

DISCUSSION – Reduced wrist range of motion in patients who have undergone RSL fusion helps to preserve satisfactory function in the majority of patients; however, the functional outcome scores point to some hindrance in day-to-day activities. Nonunion occurred in nearly